PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2000-252461
(43)Date of publication of application : 14.09.2000

(51)Int.Cl. H01L 29/78
H01L 21/316
H01L 21/324

(21)Application number : 11-052396
(22)Date of filing : 01.03.1999

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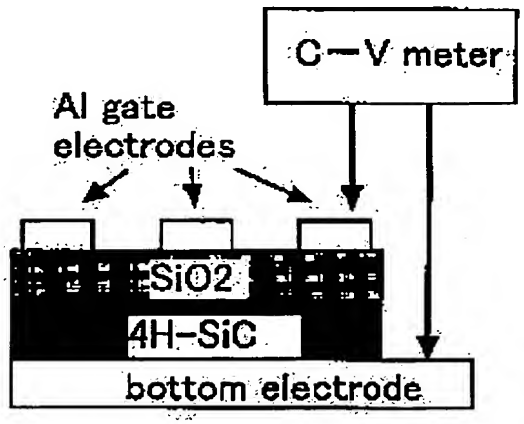
(54) MANUFACTURE OF SEMICONDUCTOR DEVICE

(57)Abstract:
PROBLEM TO BE SOLVED: To provide a MOS capacitor of interface level density by forming at least one layer of oxide film and nitride film as a gate insulating film on a semiconductor substrate comprising a silicon carbide on the top layer before annealing in the atmosphere containing hydrogen at a temperature in specified range.
SOLUTION: On a semiconductor substrate comprising a silicon carbide(SiC) on its top, at least one layer of gate insulating film comprising oxide film and nitride film is formed for annealing in the atmosphere containing hydrogen at 600-1600°C thereafter, so that dangling bond of carbon or silicon present at an insulating film/silicon carbide interface is terminated, thus reducing an interface level density for better interface. Al is used for a gate electrode and ohmic contact to produce a MOS capacitor, eventually. Thus, an insulating film/silicon carbide interface sufficiently resistant for actual use is provided.



LEGAL STATUS

[Date of request for examination] 01.03.1999
[Date of sending the examiner's decision of rejection] 10.10.2000
[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]	
[Patent number]	3443589
[Date of registration]	27.06.2003
[Number of appeal against examiner's decision of rejection]	2000-17769
[Date of requesting appeal against examiner's decision of rejection]	08.11.2000
[Date of extinction of right]	